

REMARKS

I. OVERVIEW

Claims 1-6 and 8-18 are pending in this application. Claim 2 is canceled, and claims 1, 3, 5, 6, 9, and 11-17 are amended. New claims 19 and 20 are added. Applicants submit that no new matter is added as written description support for the new and amended claims exists in the specification and claims as originally filed.

III. INTERVIEW SUMMARY

Applicants thank the Examiner for the courtesy of the interview held on March 7, 2011, with counsel for Applicants. During the interview, the rejection over Kitagawa was discussed, along with potential options showing unexpected results. Specifically, Applicants proposed comparing the results shown for Examples 5 or 6 in the specification with test results to be generated by replacing the non-reactive polymer (polyester) of Examples 5 or 6 with plasticizer K2 or K5 disclosed in the Kitagawa reference. Applicants understood the Examiner to agree that such a test would be acceptable, depending on the results, to show unexpected results.

III. REJECTION UNDER 35 U.S.C. § 103(a) OVER KITAGAWA

The Office Action continues to reject claims 1-6 and 8-18 under 35 U.S.C. § 103(a) as unpatentable over Kitagawa *et al.* (JP 2002-69288) ("Kitagawa").

According to the Office Action, Kitagawa teaches the combination of components required by Applicants' claims for use as an adhesive. *See* Office Action at 2. According to the Office Action, the component B of Kitagawa and the component C of Kitagawa—when it is a polyether or polyester—are equivalent to (A) and (B) of the present claims and are taught in overlapping proportions. The Office Action acknowledges that a polyester is only one of twelve

possible plasticizers (C) in Kitagawa, but finds that, absent evidence of unexpected results, the claims remain *prima facie* obvious.

Applicants have amended the claims to place them in better form for U.S. prosecution and to clarify what is claimed. In particular, Applicants note that the subject matter of canceled dependent claim 2 relating to "organic polymer (A)" is incorporated into independent claims 1, 16, and 17. Moreover, the recitations regarding "organic polymer (B)" are amended such that:

- In claims 1 and 16, "organic polymer (B)...comprises a polyester;" and
- In claim 17, "organic polymer (B)...comprises a polyurethane, a polyethylenediamine, a polycarbonate, a polyurea, a polyamide or a mixture thereof.

As previously discussed, Kitagawa states that, "[e]xamples of macromolecular plasticizer (C)...used in the present invention, include an oxyalkylene polymer, a polyester, poly- α -methylstyrene, polystyrene, polybutadiene, an alkyd resin, polychloroprene, polyisoprene, polybutene, hydrogenated polybutene, epoxidated polybutadiene, a butadiene-acrylonitrile copolymer, and the like, as well as mixtures thereof." Kitagawa at pp. 40-41 (emphasis added).

With regard to amended claim 17, Applicants respectfully submit that Kitagawa does not teach a plasticizer comprising a polyurethane, a polyethylenediamine, a polycarbonate, a polyurea, or a polyamide. Accordingly, Applicants respectfully submit that the Office Action fails to establish a *prima facie* case of obviousness with regard to claim 17 (and dependent claim 19) for at least the reason that Kitagawa fails to teach an "organic polymer (B)" as recited in amended claim 17.

With regard to the remaining rejected claims, Applicants provide evidence below of unexpected results as discussed during the interview.

Experimental Evidence

Comparative Example 5A :

The adhesive composition of Example 5 of the specification was reproduced, except that the polycaprolactone polyester was replaced with VORANOL EP1900 which is a polyether diol with average molecular weight of 3800 g/mole. See Exhibit A. VORANOL is believed to be a close structural analogue of the polyoxypolypropylene diol "K2" of molecular weight 3000 g/mole described in Kitagawa at the bottom of page 69.

Comparative Example 5B :

The adhesive composition of Example 5 of the specification was reproduced, except that the polycaprolactone polyester was replaced with TERATHANE 2900, which is a polytetramethylene ether glycol with a molecular weight of about 2900 g/mole. See Exhibit B. TERATHANE is believed to be a close structural analogue of the compound K5 described on pages 72 and 80 of Kitagawa as a polytetramethylene glycol with a molecular weight of about 3000 g/mole.

Results

Tack is a property of an adhesive composition that is very important for its practical use and relates to the immediate grab developed by a substrate coated with the adhesive. The tack of the compositions of Comparative Examples 5A and 5B was measured by the "suction cup effect" test, described on page 6 of the specification.

Example	Tack
Inventive (5)	9
Comparative (5A)	6
Comparative (5B)	8

Accordingly, the composition of the invention (5) with polymer (B) comprising a polyester was shown to exhibit significantly improved tack as compared with Comparative Examples 5A and 5B, with a polyether as polymer (B). The result that replacing a polyether by a polyester improves the tack of the overall adhesive composition is quite surprising in view of the teaching of Kitagawa. Applicants respectfully submit that any *prima facie* case of obviousness is overcome by this showing of unexpected results.

Withdrawal of this rejection is respectfully requested.

IV. CONCLUSION

An indication of allowance of all pending claims is respectfully solicited. In the event any issues remain, Applicants would appreciate the courtesy of a telephone call to their counsel to resolve such issues and place all claims in condition for allowance.

Respectfully submitted,

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